



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/634,258	08/08/2000	paul C. Allen	4926/ETEC	4935

32588 7590 06/03/2004

APPLIED MATERIALS, INC.  
2881 SCOTT BLVD. M/S 2061  
SANTA CLARA, CA 95050

EXAMINER

FERNANDEZ, KALIMAH

ART UNIT PAPER NUMBER

2881

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application N

09/634,258

Applicant(s)

ALLEN, PAUL C.

Examiner

Kalimah Fernandez

Art Unit

2881

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 May 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_


Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1-4, 6-10, 12-16, 18-22 and 24.

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
10. ☐ Other: \_\_\_\_\_

Continuation of 5. Applicant's reply has overcome the following rejection(s): Applicant argues two distinct points: 1) May fails to teach the SLM controlling the pattern of the electron beam, but rather the photocathode (5) controls the pattern and 2) May fails to teach the ability to control the SLM by computer since May's SLM is a static, non-modifiable element and it is the optical radiation source which is multiplexed in May. Each will be address in turn. In accordance with MPEP 2111, the language of applicant's claims was given their broadest reasonable interpretation consistent with not only the supporting specification, but also in light of the interpretation an ordinary skilled artisan would have made. In response to applicant's continued contention that May's SLM does not control the pattern, May teaches a pixellated SLM (col.4, lines 1-2), which forms a 3D image (col.4, lines 38-40). A full reading of May's specification discloses the use of the SLM for forming a desired pattern using a pixellated LCD such that no mask is necessary (see col. 1, line 66-col.2, lines 25). May, also, teaches the SLM controlling the light intensity through the pixel such that the light is multiplexed (col.4, lines 50-63; col.5, lines 6-10). The disputed claim language "said modulation of the radiation by the spatial light modulator controls the pattern of electron beams emitted by the photocathode" was examined in light of its supporting description in pg. 10, lines 10-13 (defining a SLM as a device that modulates the intensity of the radiation and pg. 11, lines 16-20 (disclosing the use of LCD modulator). Further, examination of the claim language in a vacuum was avoided by an analysis of May in light of what an ordinary artisan would assess it to disclose. In particular, May teaches the ability to modulate light into a pattern such that when the modulated light impinges the photocathode (5), electrons are emitted and are further deflected by associated electrodes (see col.1, lines 66-col.2, lines 5). Therefore, applicant's continued argument regarding May's SLM ability to control the pattern is not persuasive, but rather is a piecemeal analysis of May, which lacks foundation. Lastly, applicant argues that May's SLM is a static, non-modifiable element incapable of computer control. In particular, applicant contends that May teaches the optical radiation source is multiplex, not the SLM. However, May clearly states that the LCD is multiplex by allowing the use of each pixel several times during temporal multiplexing or by utilizing only selected pixel in spatial multiplexing (see col.4, lines 50-63). May further teaches that the LCD's pixels are switched in performing multiplex (see col. 5, lines 37-42). Nowhere does May suggest that multiplexing of the optical radiation is performed. Therefore, May's SLM is not a static, non-modifiable element, but an active modulator of light in accordance with the language of the claims wherein the obvious combination of May and Hornbeck establishes prima facie obviousness under 35 USC 103 (a). Applicant's argument fails to rebut or otherwise overcome the rejection mailed on 3-17-03.

  
JOHN R. LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800